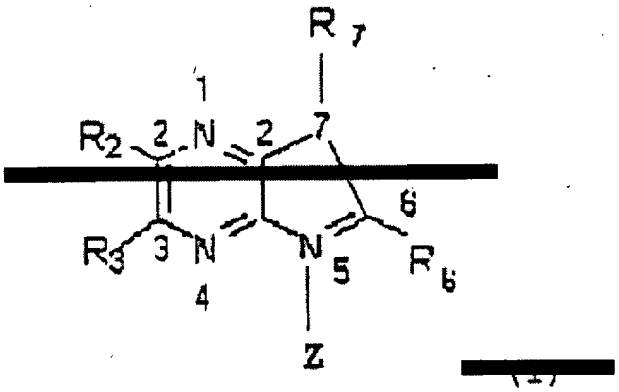
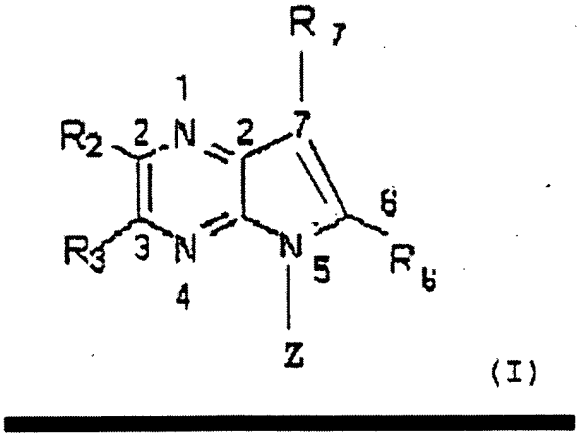
AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A Pyrrolo [2, 3b]—pyrazine derivative[[s]] having the general formula (I):





wherein :

[[-]]R2 and R3 are identical or different, and represent H, C1-C6 alkyl, said

alkyl being a straight or branched - chain alkyl, which can be substituted,

[[-]]R6 is an optionally substituted aromatic cycle Ar or a cycloalkyl, said cycloalkyl being optionally substituted by an aryl group which can also be substituted,

[[-]]R7 is H, C1-C6 alkyl, $(alk.)_n$-hal., CH_2-CH = CH_2, CH_2-cycloalkyl, CH_2-Ar, with "alk." being a C1-C6 alkylene group, n being 1-6,

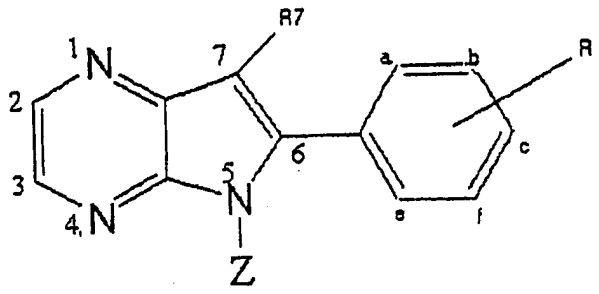
[[-]]Z is [[H or]] CH_3.

2. (Currently Amended) The pyrrolo [2, 3b]—pyrazine derivative[[s]] of claim 1, wherein Ar is phenyl, naphtyl, furyl, thienyl, pyridyl, cyclopropyl phenyl, or phenyl dioxolyl.

3. (Currently Amended) The pyrrolo [2, 3b]-pyrazine derivative[[s]] of claim 1, wherein the Cycloalkyl group is a C3-C6 cycloalkyl.

4. (Currently Amended) The pyrrolo [2, 3b]—pyrazine derivative[[s]] of claim 1, wherein the substitutions groups are independently selected from ~~in the group comprising one or more~~ halogen ~~(F,Cl, Br, I, CF_3)~~, OH, NH_2, N(H, alkyl), $N(alkyl)_2$, O-alkyl, COOH, COO-alkyl, $CONH_2$, CON (H, alkyl), $CON(alkyl)_2$, $NHCONH_2$, NHCON (H, alkyl), NHCON $(alkyl)_2$,N (alkyl) $CONH_2$,N(alkyl)CON(H,alkyl), N(alkyl)$CON(alkyl)_2$, alkoxy, CN, O-SO_2-NH_2, O-SO_2-N (H, alkyl), -O-SO_2-N $(alkyl)_2$, SH,S-alkyl.

5. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 1, with an $IC_{50} \leq 10\mu M$ with respect to CDK1/cyclin B and/or CDK5/p25 and/or GSK-3 and having formula (II):



(II)

wherein:

[[-]]the phenyl group at position 6 is substituted by one, two or three R substituents independently selected from ~~in the group comprising:~~

-H, -OH, alkyl, -O alkyl, hal., $-NH_2$, -N(H,alkyl), $-N(alkyl)_2$, $-O-SO_2-NH_2$, $-O-SO_2-N$(H, alkyl), $-O-SO_2-N(alkyl)_2$, -COOH, -COO-alkyl, $CONH_2$, -CON(H,alkyl), and -$CON(alkyl)_2$,

[[-]]R7 is H, alkyl, $(alk.)_n$ hal., $-CH_2-CH = CH_2$, $(alk.)_n$- cycloalkyl, or alk.-Ar, and

[[-]]Z is [[H or]]CH_3.

6. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 5, ~~corresponding to the derivatives of formula (II)~~ wherein

each R [[=]]is independently H, OH, alkoxy, hal., or alkyl and R7 [[=]]is H or

~~to derivatives wherein~~ each R is independently [[=]] alkoxy, and R7 [[=]]is alkyl, $(alk.)_n$ -hal., or $CH_2-CH = CH_2$, ~~or~~

~~R =is independently $O-SO_2-N-(alkyl)_2$, hal., OH, R7 = alkyl,~~

~~n = 1-3 and~~

~~Z = H~~.

7. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 5,

having an IC_{50} value ≤ 5μM with respect to CDK1/cyclin B, CDK5/p25 and GSK-3.

Claim 8. (Canceled)

Claim 9. (Canceled)

10. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 5 having an IC_{50} ≤ 1μM with respect to CDK1/cyclin B, CDK5/p25 and GSK-3.

11. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 10, ~~corresponding to derivatives of formula (II)~~ wherein each R is independently p-alkoxy, p-0-SO_2-N-$(alkyl)_2$, or p-OH and R7 is alkyl.

12. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 11, wherein R on the phenyl group at position a is Ra, R on the phenyl group at position b is Rb, R on the phenyl group at position c is Rc, R on the phenyl group at position d is Rd and R on the phenyl group at position e is Re, and~~corresponding to compounds with~~ Ra, Rb and Rd [[=]]are H, Rc [[=]]is alkoxy, O-SO_2-N$(alkyl)_2$, or OH and R7 [[=]]is alkyl.

13. (Withdrawn – Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 5, having an IC_{50} ≤ 0.5 μM with respect to CDK1/cyclin B, CDK5/p25 and GSK-3, wherein R on the phenyl group at position a is Ra, R on the phenyl group at position b is Rb, R on the phenyl group at position c is Rc, R on the phenyl group at position d is Rd and R on the phenyl group at position e is Re, and Ra, Rb and Rd [[=]]are H, Rc [[=]]is alkoxy or OH and R7 [[=]]is alkyl.

14. (Currently Amended) The pyrrolo [2, 3b]-pyrazine derivative[[s]] of claim [[1]]5, has an IC_{50} value ≤ 10μM with respect to CDK1/cyclin B and CDK5/p25 or GSK-3, or to CDK5/p25 and GSK-3.

15. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 14, having an $IC_{50} \leq 10\mu M$ with respect to CDK5/p25 and GSK-3.

16. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 15, wherein each R is independently [[=]] H, OH, alkoxy, hal., alkyl, or $O\text{-}SO_2\text{-}N(alkyl)_2$, and R7 is [[=]] H, alkyl, $(alk.)_n$-hal., or $CH_2CH = CH_2$.

17. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 15, having an IC_{50} value $\leq 5\mu M$ with respect to CDK5/p25 and GSK-3, wherein each ~~with~~ R is independently H, p-alkoxy, OH, hal., or $O\text{-}SO_2\text{-}N\text{-}(alkyl)_2$ and R7 is H, alkyl, $(alk.)_n$, hal., or $CH_2\text{-}CH = CH_2$.

18. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 17, wherein R on the phenyl group at position a is Ra, R on the phenyl group at position b is Rb, R on the phenyl group at position c is Rc, R on the phenyl group at position d is Rd and R on the phenyl group at position e is Re, and~~having~~ Ra, Rb, Rc, Rd and R7 [[=]]are H, or Ra, Rb and Rd [[=]]are H, Rc [[=]]is alkoxy, hal., $(alk.)_n$ -hal., or OH and R7 [[=]]is H, or Ra, Rb and Rd [[=]]are H, Rc [[=]]is alkoxy, [[or]]$OSO_2\text{-}N(alkyl)_2$, hal., or OH and R7 [[=]]is alkyl, or Ra and Rd [[=]]are H, Rb and Rc [[=]]are alkoxy and R7 [[=]]is alkyl.

19. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 15, having an IC_{50} value $\leq 1\mu M$ with respect to CDK5/p25 and GSK-3, wherein each ~~with~~ R is independently [[=]] p-alkoxy, p- dialkoxy, ~~and~~ m-dialkoxy, hal., p-$O\text{-}SO_2\text{-}N(alkyl)_2$, or p-OH and R7 [[=]]is H or alkyl.

20. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 19,

wherein R on the phenyl group at position a is Ra, R on the phenyl group at position b is Rb, R on the phenyl group at position c is Rc, R on the phenyl group at position d is Rd and R on the phenyl group at position e is Re, and~~herein~~ Ra, Rb, Rd [[=]]are H, Rc [[=]]is alkoxy and R7 [[=]]is alkyl, or Ra and Rd [[=]]are H, Rb and Rc [[=]]are alkoxy and R7 [[=]]is alkyl, or Ra, Rb and Rd [[=]]are H, Rc [[=]]is O-SO_2-N(alkyl)$_2$ or OH and R7 [[=]]is alkyl.

21. (Withdrawn – Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 15, having an $IC_{50} \leq$ O.5μM with respect to CDK5/p25 and GSK-3, wherein R on the phenyl group at position a is Ra, R on the phenyl group at position b is Rb, R on the phenyl group at position c is Rc, R on the phenyl group at position d is Rd and R on the phenyl group at position e is Re, and ~~with~~ Ra, Rb, and Rd [[=]]are H, Rc [[=]]is alkoxy or OH, and R7 [[=]]is alkyl.

22. (Currently Amended) The pyrrolo [2,3b)-pyrazine derivatives of claim 14, wherein said derivative[[s]] have an $IC_{50} \leq$ 10μM with respect to CDK1 and GSK3, ~~with~~ wherein each R is independently [[=]] H, OH, akoxy, hal., alkyl, CN, or O-SO_2-N(alkyl)$_2$ and R7 [[=]]is H, alkyl, (alk.)$_n$-hal, CH_2-CH = CH_2, alk. - cycloalkyl, or alk. -aryl.

23. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 22, wherein said derivative[[s]] have an $IC_{50} \leq$ 5μM with respect toCDK1 and GSK-3, wherein each ~~with~~ R is independently [[=]] H, p-alkoxy, p- and m-alkoxy, p-OH, p-hal., p-O-SO_2-N(alkyl)$_2$, or p-CN, and R7 [[=]]is H [[or]], alkyl, (alk.)$_n$ hal., CH_2-CH = CH_2, (alk.)$_n$-cycloalkyl, or (alk.)$_n$-aryl.

24. (Withdrawn – Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]]

of claim 23, wherein R on the phenyl group at position a is Ra, R on the phenyl group at position b is Rb, R on the phenyl group at position c is Rc, R on the phenyl group at position d is Rd and R on the phenyl group at position e is Re, and~~wherein said derivatives have~~ Ra, Rb and Rd [[=]]are H, Rc [[=]]is alkoxy, OH, hal., alkyl, or CN and R7 [[=]]is H, or Ra, Rb, Rd [[=]]are H, Rc [[=]]is alkoxy and R7 [[=]]is alkyl, $(alk.)_n$-hal. or CH_2-CH = CH_2, or Ra and Rd [[=]]are H, Rb and Rc [[=]]are alkoxy and R7 [[=]]is alkyl, or Ra, Rb and Rc [[=]]are H, Rd [[=]]is O-SO_2-N-$(alkyl)_2$, and R7 [[=]]is alkyl, or Ra, Rb and Rd [[=]]are H, Rc [[=]]is hal. and R7 [[=]]is $(alk.)_n$-aryl.

25. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 22, having an IC_{50} value ≤ 1μM with respect to CDK1 and GSK-3, ~~with~~ wherein each R is independently [[=]] p-alkoxy, p-O-$S0_2$-N $(alkyl)_2$, p-hal., H, or p-OH, and R7 [[=]]is alkyl, [[or]] $(alk.)_n$-hal, CH_2-CH = CH_2, $(alk.)_n$-cycloalkyl, or $(alk.)_n$-aryl.

26. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 25, wherein R on the phenyl group at position a is Ra, R on the phenyl group at position b is Rb, R on the phenyl group at position c is Rc, R on the phenyl group at position d is Rd and R on the phenyl group at position e is Re, and wherein Ra, Rb and Rd [[=]]are H, Rc [[=]]is alkoxy, OH, O-$S0_2$-N$(alkyl)_2$, or hal. and R7 [[=]]is alkyl, CH_2-CH = CH_2, or CH_2-cycloalkyl.

27. (Withdrawn – Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 22, having ~~wherein said derivatives have~~ an IC_{50} value ≤ 0.5μM with respect to CDK1/cyclin B and GSK-3, wherein R on the phenyl group at position a is Ra, R on the phenyl group at position b is Rb, R on the phenyl group at position c is Rc, R on the

phenyl group at position d is Rd and R on the phenyl group at position e is Re, and wherein~~with~~ Ra, Rb and Rd [[=]]are H, Rc [[=]]is alkoxy or OH and R7 [[=]]is alkyl.

28. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 14, having ~~wherein said derivatives have~~ an $IC_{50} \leq 10\mu M$ with respect to CDK1/cyclin B and CDK5/p25, ~~with~~wherein each R is independently [[=]] H, OH, alkoxy, hal., alkyl, or O-SO_2-N(alkyl)$_2$ and R7 [[=]]is H, alkyl, (alk.)$_n$-hal., CH_2-CH = CH_2.

29. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 28, having an $IC_{50} \leq 5\mu M$ with respect to CDK1/cyclin B and GSK-3, and wherein each R is independently ~~preferably~~ H, O-alkoxy, p-alkoxy, m- and p-alkoxy, p-OH., p-hal., or p-O-SO_2-N(alkyl)$_2$ and R7 is H, alkyl, (alk.)$_n$- hal., or CH_2-CH = CH_2.

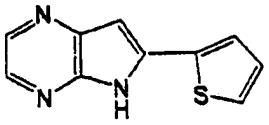
30. (Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 29, wherein R on the phenyl group at position a is Ra, R on the phenyl group at position b is Rb, R on the phenyl group at position c is Rc, R on the phenyl group at position d is Rd and R on the phenyl group at position e is Re, and wherein Ra, Rb, Rc, Rd and R7 [[=]]are H, or Ra [[=]]is OH and Rb, Rc, Rd and R7 [[=]]are H, or Rc, Rb and Rd [[=]]are H, Rc [[=]]is alkoxy, OH or hal. and R7 [[=]]is H, (alk.)$_n$-hal., CH_2-CH = CH_2, alkyl, or Ra and Rd [[=]]are H, Rb and Rc [[=]]are alkoxy and R7 [[=]]is H, or Ra, Rb and Rd [[=]]are H, Rc [[=]]is O- SO_2-N-(alkyl)$_2$ or hal. and R7 [[=]]is alkyl.

31. (Currently Amended) The Pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 28, ~~wherein said derivatives have~~having an $IC_{50} \leq 1\mu M$ with respect to CDK1/cyclin B and GSK-3, and wherein each R is independently [[=]] p-alkoxy, p-O-SO_2-N(alkyl)$_2$, p-hal., or p-OH and R7[[=]]is alkyl.

32. (Currently Amended) The pyrrolo [2, 3b]-pyrazine derivative[[s]] of claim 31, wherein R on the phenyl group at position a is Ra, R on the phenyl group at position b is Rb, R on the phenyl group at position c is Rc, R on the phenyl group at position d is Rd and R on the phenyl group at position e is Re, and wherein Ra, Rb and Rd [[=]]are H, Rc [[=]]is alkoxy, OH or $O\text{-}SO_2\text{-}N(alkyl)_2$ and R7 [[=]]is alkyl.

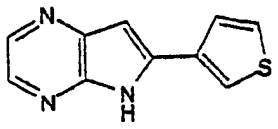
33. (Withdrawn – Currently Amended) The pyrrolo (2,3b]-pyrazine derivative[[s]] of claim 28, having ~~wherein said derivatives have~~ an $IC_{50} \leq 0.5\mu M$ with respect to CDK1/cyclin B and GSK-3, wherein R on the phenyl group at position a is Ra, R on the phenyl group at position b is Rb, R on the phenyl group at position c is Rc, R on the phenyl group at position d is Rd and R on the phenyl group at position e is Re, and wherein Ra, Rb, and Rd [[=]]are H, Rc [[=]]is alkoxy or OH and R7 [[=]]is alkyl.

34. (Withdrawn – Currently Amended) The pyrrolo [2,3b]-pyrazine derivative[[s]] of claim 1, with an $IC_{50} \leq 10\mu M$ with respect to CDK1/cylcin B, CDK5 and GSK-3 having the structure of ~~has~~ formula (III), and ~~even~~ an $IC_{50} \leq 5\mu M$ with respect to CDK5/p25 and GSK-3.



(III)

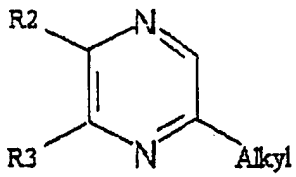
35. (Withdrawn – Currently Amended) The pyrrolo [2, 3b]-pyrazine derivative[[s]] of claim 1, having the structure of formula IV with an $IC_{50} \leq 5\ \mu M$ with respect to CDK1/cyclin B, CDK5/p25 and GSK-3, and an IC_{50} value $\leq 1\mu M$ with respect to CDK5/p25 and GSK-3.



(IV)

36. (Withdrawn – Currently Amended) The pyrrolo [2, 3b]-pyrazine derivative[[s]] of claim 1 wherein R2 and R3, and/or Z and/or R7 are different from H.

37. (Withdrawn – Currently Amended) A method for preparing the pyrrolo [2,3b]-pyrazine derivative[[s]] of formula I according to claim 1 comprising reacting alkyl-pyrazines of formula (V) :



(V)

wherein :

~~R1 and R3 are as above defined, and~~ Alkyl is a C1-C6 alkyl,

with aromatic nitriles[[,]] of the following structure R6CN~~, wherein R6 is as above defined~~.

38. (Currently Amended) A pharmaceutical composition ~~Pharmaceutical compositions~~ comprising an effective amount of at least one derivative of ~~anyone of~~ claim 1 as active principle, in association with a pharmaceutically acceptable carrier.

39. (Currently Amended) The pharmaceutical composition[[s]] of claim 38 for treating ~~or preventing neurodegenerative disorders such as~~ Alzheimer' s disease ~~and~~

~~Parkison' s diseases~~.

Claim 40. (Canceled)

41. (Currently Amended) The pharmaceutical composition[[s]] of claim 38, in a form to be administered in one of the following ~~various~~ forms: ~~e.g.~~ orally, topically, ~~by injection~~ (injection intravenously, injection subcutaneously, injection intraperitoneally, or rectally[[)]].

42. (Currently Amended) The pharmaceutical composition of claim 41, for administration by the oral route comprising 100 to 1000 mg of active principle per dose unit~~, preferably 300 to 600 mg~~.

43. (Currently Amended) The pharmaceutical compositions of claim 41 under injectable forms, comprising 100 to 1000 mg of active principle ~~preferably 300 to 600 mg,~~ per dose unit.

44. (new) The pharmaceutical composition of claim 41, for administration by the oral route comprising 300 to 600 mg of active principle per dose unit.

45. (new) The pharmaceutical composition of claim 41 under injectable forms, comprising 300 to 600 mg of active principle per dose unit.

46. (new) The pyrrolo [2, 3b]—pyrazine derivative of claim 4, wherein the halogen is selected independently from F, Cl, Br, I and CF_3.